

Claims:

1. A method for distributing satellite tracking data to a remote receiver comprising:
receiving satellite tracking data from a satellite control station;
representing at least a portion of said satellite tracking data in a format supported by the remote receiver; and
transmitting the formatted data to the remote receiver.
2. The method of claim 1 where the satellite tracking data comprises data representative of the satellite orbits.
3. The method of claim 1 where the satellite tracking data comprises data representative of future satellite orbits.
4. The method of claim 2, where the satellite tracking data further comprises data representative of the satellite clock offsets.
5. The method of claim 3a where the satellite tracking data further comprises data representative of the future satellite clock offsets.
6. The method of claim 1 wherein said satellite control station is the Master Control Station for at least one of a GPS satellite system or a Galileo satellite system.
7. The method of claim 6 wherein said receiving step comprises receiving said satellite tracking data from said Master Control Station via a frame relay communication link.
8. The method of claim 6 wherein said satellite tracking data comprises ephemeris data from at least one said GPS satellite system or said Galileo satellite system.
9. The method of claim 8 wherein said ephemeris data includes blocks of ephemeris data valid for a period of time in the future.

10. The method of claim 1 wherein said satellite tracking data comprises at least one of: a plurality of satellite positions with respect to time for a period of time into the future, a plurality of satellite clock offsets with respect to time for a period of time into the future.

11. The method of claim 1 wherein said satellite tracking data comprises at least one of: data representative of satellite positions, velocities or acceleration; data representative of satellite clock offsets, drift, or drift rates.

12. The method of claim 1 wherein said format comprises a format that is prescribed by said remote receiver.

13. The method of claim 1 wherein said format is a model containing at least one of: orbital parameters and clock parameters.

14. The method of claim 13 wherein said orbital parameters and clock parameters are defined by a global positioning system standard.

15. The method of claim 13 wherein said model comprises more than one sequential model, each sequential model being valid for a period of time.

16. The method of claim 13 wherein said model is valid for a period of four hours.

17. The method of claim 13 wherein said model is valid for a period of more than four hours.

18. The method of claim 1 wherein said remote receiver is a GPS receiver.

19. The method of claim 1 wherein said remote receiver is a satellite positioning system receiver.

20. The method of claim 1 wherein said format is a standard format for transmitting satellite models to a global positioning system receiver.
21. The method of claim 1 wherein the satellite tracking data is valid for a first period of time and the at least a portion of said satellite tracking data is valid for a second period of time, where said first period is longer than said second period.
22. The method of claim 1 wherein said transmitting step further comprises:
transmitting using a wireless communications link.
23. The method of claim 22 wherein said transmitting step further comprises:
broadcasting the formatted data to a remote receiver.
24. The method of claim 1 wherein said transmitting step comprises:
transmitting using a computer network.
25. The method of claim 24 wherein said transmitting step further comprises:
broadcasting the formatted data to a remote receiver.
26. The method of claim 1 wherein said transmitting step comprises:
transmitting using the Internet.
27. The method of claim 26 wherein said transmitting step further comprises:
broadcasting the formatted data to a remote receiver.
28. The method of claim 26 wherein said transmitting step couples the formatted data to the remote receiver when said remote receiver connects to the Internet.
29. The method of claim 1, wherein said transmitting step further comprises:
determining a time when a cost of transmitting the formatted data is relatively low; and
transmitting the formatted data at said time.

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30. The method of claim 1, wherein said transmitting step further comprises:
determining a time when the congestion of a transmission network is relatively low;
transmitting the formatted data at said time.

31. Apparatus for distributing satellite tracking data to a remote receiver comprising:
a computer for receiving satellite tracking data from a satellite control station,
accessing at least a portion of said satellite tracking data from a memory, and
formatting at least a portion of said satellite tracking data in a format supported by the remote receiver; and
means for transmitting the formatted data to the remote receiver.

32. The apparatus of claim 31 wherein said satellite control station is the Master Control Station of at least one of a GPS satellite system or Galileo satellite system.

33. The apparatus of claim 32 further comprising a frame relay for communicating said satellite tracking data from said Master Control Station to said computer.

34. The apparatus of claim 32 wherein said satellite tracking data is ephemeris data of at least one of said GPS satellite system or Galileo satellite system.

35. The apparatus of claim 31 wherein said satellite tracking data comprises at least one of: a plurality of satellite positions with respect to time for a period of time into the future, a plurality of satellite clock offsets with respect to time for a period of time into the future.

36. The apparatus of claim 31 wherein said satellite tracking data comprises at least one of: data representative of satellite positions, velocities or acceleration; data representative of satellite clock offsets, drift, or drift rates.

37. The apparatus of claim 31 wherein said format comprises a format that is

prescribed by said remote receiver.

38. The apparatus of claim 31 wherein said format is a model containing at least one of: orbital parameters and clock parameters.

39. The apparatus of claim 38 wherein said orbital parameters and clock parameters are defined by the global positioning system standard.

40. The apparatus of claim 38 wherein said model comprises more than one sequential model, each sequential model being valid for a period of time.

41. The apparatus of claim 38 wherein said model is valid for a period of more than four hours.

42. The apparatus of claim 31 wherein said remote receiver is a GPS receiver.

43. The apparatus of claim 31 wherein said remote receiver is a satellite positioning system receiver.

44. The apparatus of claim 31 wherein said format is a standard format for transmitting satellite models to a global positioning system receiver.

45. The apparatus of claim 31 wherein the satellite tracking data is valid for a first period of time and the at least a portion of said satellite tracking data is valid for a second period of time, where said first period is longer than said second period.

46. The apparatus of claim 31 wherein said transmitting means comprises:
a wireless communications link.

47. The apparatus of claim 31 wherein said transmitting means comprises:
a computer network.

48. The apparatus of claim 31 wherein said transmitting means comprises:
the Internet.